Decision Memorandum on Action and for Application of:

Categorical Exclusion 1.12 – Hazardous Fuels Reduction Activities

Ranger Project/Hazardous Fuels Reduction

US Department of the Interior
Bureau of Land Management
Arizona Strip Field Office
Mohave County, Arizona

Project Description

The Ranger Project is an effort to reintroduce low intensity fire into a ponderosa pine forest in an effort to reduce hazardous fuels and restore ecosystem function and condition. BLM proposes to prepare, burn, and seed 200 acres surrounding the Nixon Administrative Site within the Parashant National Monument. The treatment includes the area between County Rd 5 and the Nixon and Corner Treatment Units, and between BLM roads 1028 and 1044 (Map).

Preparation activities include the construction of fireline using hand tools, including chainsaws, and selective thinning of small diameter pinyon, juniper, and ponderosa trees around pre-settlement trees to remove ladder fuels.

Burn activities include the application of fire in accordance with an approved Burn Plan, using a variety of handheld ignition devices, to create low intensity fire behavior and low burn severity. Burning would be conducted only when it would not emit smoke into the Grand Canyon, a Class I airshed.

Rehabilitation includes obliterating firelines and applying native seed to the burned area.

The unit is best characterized as mostly pure stands of ponderosa pine, with some pinyon, juniper, oak, shrubs, forbs, and grasses.

The area has been inventoried for cultural resources. Any surface or sub-surface archaeological, historical, or paleontological remains not covered by the Cultural Resource Project Record discovered during preparation or actual work would be left intact; all work in the area would stop immediately and the Field Office Manager would be notified. Commencement of work would be allowed upon clearance by the Manager in consultation with the Archaeologist. Additional archaeological survey would be required in the event the proposed project location is changed, or additional surface disturbing activities are added to the project after the archaeological survey. Any such survey would have to be completed prior to the commencement or continuation of the project.

If, in connection with this work, any human remains, funerary objects, sacred objects, or objects of cultural patrimony as defined in the Native American Graves Protection Act are discovered, the operation would cease in the area of the discovery. The discovery would be protected and operations would not resume until authorized by the Field Manager.

The area has been inventoried for T/E species. A qualified biologist would be on site during all construction activities to monitor compliance. If a listed species was observed during construction or preparation, all work in the area would stop and would not be allowed to resume if there was any possibility that activities could adversely affect the species. If it is determined that the project would affect any listed species, the project would halt until consultation with the US Fish and Wildlife Service could occur.

Burn Preparation

BLM would use handtools, including chainsaws, to prepare the units for burning. Burn preparation consists of removing duff/litter concentrations and ladder fuels around significant features such as fences, signs, pre-settlement trees, snags, downed logs, and identified cultural sites.

The units would not be thinned mechanically except within approximately 30 feet of such features (less than 5% of the project area). Crews would rake around these features, and cut, lop, and scatter smaller diameter, post-settlement trees and brush. Short sections of fireline would be constructed as necessary to prevent the spread of fire outside of unit boundaries. Fireline is not needed in most areas where roads serve as an effective barrier. Where fireline is constructed (less than 300 yards for the entire project) it would be the minimum necessary – usually consisting of a 1-3 ft wide handline with a 10 ft wide sawline on each side. All stumps would be flush cut and camouflaged to reduce visual impacts.

Crews would construct fireline around the Ponderosa Wildlife Catchment in the NW corner of section 33, and would take measures necessary to protect the Nixon Spring Pipeline that runs underneath the surface. Crews would take similar measures to safeguard AGFD or NAU-ERI research plots within the project area. BLM would also remove light fuels such as grass and shrubs within 3 ft radius around 30 to 50 small (less than 5 ft high) ponderosa pine tree seedlings that have established in the Nixon Wildfire area.

Prescribed Fire

BLM would introduce low intensity understory fire during the fall or spring in accordance with an approved burn plan. BLM would analyze smoke production and dispersal patterns and apply for a Smoke Permit from the Arizona Department of Environmental Quality, and would not burn unless a permit is granted by the State. The burn plan would prescribe environmental conditions under which burning could occur that would meet the objectives for the treatment.

Crews would implement measures to keep fire from damaging resources (Admin Site, fences, catchment, pipeline, cultural sites, pre-settlement trees, snags, and downed logs, ponderosa seedlings, research plts)

Monitoring/Research

Prior to burning BLM would monitor fuel conditions on the units, measuring fuel moistures, and estimating fuel density. During the burn operations BLM would monitor fire behavior. BLM would implement pre-project herbaceous vegetation monitoring to establish baseline grass/forb conditions and post-burn monitoring to evaluate treatment effectiveness (objectives) and determine seed mix success.

Treatment unit is immediately adjacent to the Cooperative BLM/AGFD/NAU-ERI Mt Trumbull Ecosystem Restoration Project. BLM would authorize non-intrusive research efforts in the treatment units.

Maintenance of Fire/Prescribed Burn Reentry

BLM would reenter the units and apply low intensity, understory prescribed burning as necessary to complete treatments, and reapply prescribed fire on a five to 15 year cycle to mimic historic fire regimes.

Seeding

BLM would use hand seeders to apply native seed mix to the Ranger Treatment Unit, using species listed in Table 1. Some variation in seed mix could occur, based on price and availability.

Table 1. Potential species and application rates

SPECIES	LBS/ACRE
Big bluegrass (Poa ampla)	**0.6**
Sand dropseed (Sporobolus cryptadrus)	**0.5**
Sideoats grama (Bouteloua curtipendula)	**1.5**
Utah serviceberry (Amelanchier Utahensis)	**0.5**
Fringed sagebrush (Artemisia frigida)	**0.5**
Wood's rose (Rosa Woodsii)	**0.5**
Arizona fescue (Festuca Arizonica)	**1.75**
Prairie Junegrass (Koeleria cristata)	**1.0**
Bottlebrush squirreltail (Sitanion hystrix)	**1.25**
Slender wheatgrass (Agropyron trachycaulum)	**1.25**
Mountain brome (Bromus marginatus)	**1.25**
Western wheatgrass (Agropyron Smithii)	**1.25**

Legal land description

- The legal description for the project is Township 35 N., Range 8 W., Section 33.
- Maps showing project location attached.

Purpose and Need for the Action

BLM intends to treat the unit in order to reduce hazardous fuels and to restore ecological conditions and functions. The 1984 Nixon Fire burned approximately 122 acres within the treatment area. Throughout the unit fuels have accumulated that pose a hazard to the Nixon Administrative Facility. Research indicates that ponderosa pine forests in the vicinity experienced a fire return interval of less than 15 years, on average, and that the absence of fire has impaired the ecological conditions and functions in the area.

The recent drought and insect outbreak in the Mt. Trumbull area has resulted in mortality in ponderosa and pinyon trees. This standing dead material, coupled with heavy ground fuels and numerous fuel ladders, has created a risk of catastrophic wildfire.

While ponderosa pine forests in the region historically experienced low intensity fire on a short return interval, livestock grazing, timber harvesting, and fire suppression have altered the fire regime and resulted in fire exclusion. As a result of fire exclusion, unhealthy levels of fuel have accumulated, creating the risk of high intensity, stand replacing wildfires. Additionally, high densities of trees have created unhealthy forest conditions where normal ecological functions are impaired and conditions are not conducive to ancillary values, such as wildlife habitat.

The overall objective of the treatment is to reduce fuel loading and disrupt fuel continuity using low intensity/low severity fire, while protecting presettlement trees, developments, and recreation opportunities and visual setting.

The goals of the project are:

Restore ecosystem function and condition

Reintroduce fire into the ecosystem

Remove/reduce hazardous fuels

Protect nearby private lands and structures from wildfire (Wildland/Urban Interface)

Provide treatment options for research

Limit conflicts with visitors by avoiding burning during mule deer hunting season

Minimize impacts on cultural resources

Minimize impacts on wildlife and special status species (plants and animals)

Specific burn objectives are:

Reduce forest litter and duff by 50-80% immediately post burn

Reduce fuel loading of dead and down fuels <20" diameter by 50-80% immediately post burn

Reduce live post-settlement overstory trees by 20-50% within two years post burn

Reduce live understory trees and shrubs by 50-80% within one year post burn

Remove 40-80% of duff and leaf litter (immediate post-burn)

Kill 25-50% of the shrubs (immediate post-burn)

Increase native grass and forb cover by 5-25% within five years post burn

Limit pre-settlement tree mortality from burn activity to less than 10% within five years post burn

Limit consumption of presettlement snags from burn activity to less than 10%

Limit reduction of downed logs greater than 20" diameter to less than 80%

Keep the prescribed burn within the Maximum Manageable Area

Limit smoke impacts on Class I airsheds in the Grand Canyon, nearby private lands, and wilderness areas to levels permitted by ADEQ

Limit damage to structures such as fences to less than 5%

Limit damage to historic structures, nearby private lands, and structures on private lands to 0%

Zero reportable accidents/injuries

Zero injuries to goshawks, zero goshawk nests damaged

Other agency involvements

The National Weather Service would provide weather forecast information. The State of Arizona Department of Environmental Quality would review applications for smoke permits and grant them, as appropriate. Arizona Game and Fish Department could provide monitoring/inventory of wildlife.

Plan Conformance

The Proposed Action is consistent with the 1992 Arizona Strip Resource Management Plan, as amended. The Proposed

Action was designed in conformance with all bureau standards and incorporates appropriate guidelines for specific required and desired conditions relevant to project activities.

Specific RMP Decisions Include:

FW01 Develop and implement activity plans directed toward managing, maintaining and protecting ponderosa pine forest ecosystems located outside wilderness areas. Management practices that may be included in activity plans are:

1. Disease and insect control

2. Selective thinning necessary for the health, vigor, regeneration or biological diversity of the forest ecosystem.

3. Salvage harvest and rehabilitation of burned areas, diseased areas, and insect kill sites.

4. Reduction of fuel.

5. Prescribed burns.

6. Prescribed management of naturally occurring fires.

FW04 In forest management activities, ensure protection of natural aesthetics, recreation, special status species, cultural resources, and other multiple-use values.

The proposed action is in conformance with the following decisions as found in the Arizona Strip District RMP Implementation Plan of 1992 (Shivwits):

AFFECTED RESOURCE	DECISION NUMBER
Forest Resources	FW02, 06, 07, 15
Woodland Resources	FW03, 09, 19
Grazing Management	GZ01, 21
Recreation Resources	RR06, 13-1,3
Special Status Species	TE01, 02, 03
Soil, Water, Air Resources	WS01, 16, 20
Wildlife Resources	WL02
Transportation/Access	TA03

The proposal is consistent with the National Monument Interim Management Guidance (BLM Instruction Memorandum No. 2002-008), which states:

Vegetation Manipulation: *Vegetation manipulation should proceed only when consistent with conservation and protection of the national conservation area or monument's resources. Chaining and other vegetation manipulation methods that cause substantial surface disturbance shall not be permitted.*

Parashant National Monument

From the Presidential Proclamation of January 11, 2000: "The Grand Canyon-Parashant National Monument is a vast, biologically diverse, impressive landscape encompassing an array of scientific and historic objects. This remote area of open, undeveloped spaces and engaging scenery is located on the edge of one of the most beautiful places on earth, the Grand Canyon. Despite the hardships created by rugged isolation and the lack of natural waters, the monument has a long and rich human history spanning more than 11,000 years, and an equally rich geologic history spanning almost 2 billion years. Full of natural splendor and a sense of solitude, this area remains remote and unspoiled, qualities that are essential to the protection of the scientific and historic resources it contains."

Interim Management for the Parashant National Monument was developed from the Monument Proclamation and Bureau policy and includes the statement: *"In general, actions that are not precluded by the Proclamation or legislation and which do not conflict with the established purposes of the monument or national conservation area may continue. Allowed activities can be restricted only where (1) the BLM, through processes required by existing law, identifies places where such uses ought to be restricted or prohibited as necessary to protect the federal lands and resources, including the objects protected by the monument or national conservation designation; or (2) where the BLM finds a clear threat from such a use to the federal lands and resources, including the objects protected by the national conservation area or monument designation and the circumstances call for swift protective action."* (Instruction Memorandum No. 2002-008 Interim Management Policy for Bureau of Land Management National Monuments and National Conservation Areas).

The proposal is not inconsistent with the Proclamation for the Parashant National Monument (2000), which is silent on the issue of prescribed burning, but does direct the BLM and NPS to manage the Monument to protect Monument objects, which includes ponderosa pine forests that are at risk from catastrophic wildfires and other threats.

Mt Trumbull Resource Conservation Area

The Mt Trumbull RCA Plan (June 1995) identified several issues and objectives for management of the area:

Major Issue 1 - "Past and current management practices in the Mount Trumbull RCA are allowing some less than desirable vegetative/soil conditions and are promoting conflicts among different uses of these resources."

Objective 1 - Restore the ponderosa pine vegetation type to a mosaic of uneven aged stands with an understory of grass and forbs with small openings, allowing wildfire to return as a natural process of the ecosystem.

While not specifically mentioned in the Mt Trumbull RCA Plan, this project is consistent with the goals and objectives for the area.

Standards and Guidelines

The Arizona Standards and Guidelines for Rangeland Health include the following:

Standard 1: Upland Sites: Upland soils exhibit infiltration, permeability, and erosion rates that are appropriate to soil type, climate, and landform (ecological site).

The proposed action is to reintroduce low intensity fire into the treatment areas, then to seed. Low intensity fire was a frequent occurrence prior to European settlement. Based on similar treatments in the area, that there would be only negligible change to soil infiltration, permeability, and erosion from low intensity fire. The proposal would not preclude attainment of Standard #1.

This proposed application of low intensity fire differs from the impacts that a high intensity wildfire would have. Under summertime conditions, the intensity and severity of a wildfire in these areas could have the effect of reducing permeability, increasing erosion, and perhaps even sterilizing soils. Failure to implement the proposal could lead to a situation where Standard #1 would not be met.

Fires could result in some soil erosion and run-off, depending on amount of vegetation burned, soil, slope, and fire frequency. In the unlikely event that a high intensity fire occurs, this could result in pockets of soil sterilization that could take several years to recover. High intensity fires could occur in juniper areas and ponderosa areas that burn out of prescription. Most impacts to soils would be short-term (less than 5 years).

Standard 2: Riparian-Wetland Sites: Riparian-wetland areas are in properly functioning condition.

There are no riparian/wetland sites within the treatment unit, nor any that would be affected by the proposal..

Standard 3: Desired Plant Communities: Productive and diverse upland and riparian-wetland plant communities of native species exist and are maintained.

In past prescribed burns in overdense ponderosa pine forests in the area, grasses and forbs have re-established in the burn areas and have provided ground cover, decreasing erosion. There would be a temporary, short-term loss of herbaceous ground cover in the Nixon wildfire area. Outside of the Nixon wildfire area ground cover consists of pine needle litter and duff. There is little to no grass or forb component. The current % of ground cover in the form or duff and needle litter is quite high, nearly 100% in some areas. There would be short-term loss of ground cover in areas covered by needle and duff litter, but it is expected that herbaceous cover would increase within one or two growing seasons.

The proposed project would be in compliance with the Arizona Standards and Guidelines for Rangeland Health and would not preclude attainment of any of the three standards.

Compliance with the National Environmental Policy Act

The Proposed Action is categorically excluded from further documentation under the National Environmental Policy Act (NEPA) in accordance with 516 DM 2, Appendix 1, 1.12~~. [Insert reasons]~~, because the project is outside wilderness and Wilderness Study Areas (WSAs), does not include any herbicide or pesticide use, requires no permanent road construction and the sale of vegetative material is not the primary purpose. The area is in Condition Class 3. The proposed project involves 528 acres of hazardous fuels reduction and prescribed fire treatment.

The application of this categorical exclusion is appropriate in this situation because there are no extraordinary circumstances potentially having effects which may significantly affect the environment. ~~[Clearly state that none of the exceptions apply]~~ These extraordinary circumstances are contained in 516 DM 2, Appendix 2, and will be addressed below in the Exceptions Review.

~~[insert any pertinent situations that were brought up during the design of the activities and explain why there is no potential for significant effe~~**Persons and Agencies Consulted**

The Grand Canyon Trust, NAU Ecological Restoration Institute and Arizona Game and Fish Department were consulted.

Decision and Rationale on Action

It is my decision to implement the proposal to prepare, burn, rehabilitate and seed the Ranger Treatment Unit.

Preparation activities include the construction of fireline using hand tools, including chainsaws, and selective thinning of small diameter pinyon, juniper, and ponderosa trees around pre-settlement trees (to remove ladder fuels), around the Nixon Administrative Site, the Ponderosa Wildlife Catchment, and the Nixon Springs Pipeline as necessary. BLM will also protect 30-50 ponderosa seedlings established after the 1984 Nixon Wildfire.

Burn activities include the application of fire in accordance with an approved Burn Plan, using a variety of handheld ignition devices, to create low intensity fire behavior and low burn severity that would meet the goals and objectives described in the CX.

Rehabilitation includes obliterating firelines and applying native seed to the burned area. Monitoring of the treatment area will be conducted before, during, and after the burn to determine if objectives are being met.

BLM would reenter the units and apply low intensity, understory prescribed burning as necessary to complete treatments, and reapply prescribed fire on a five to 15 year cycle to mimic historic fire regimes.

There are no anticipated significant impacts to any resource. In addition, I have reviewed the Plan Conformance Statement and have determined that the Proposed Action is in conformance with the approved land use plan and that no further environmental analysis is required.

The action is necessary to attempt to restore fire as a natural process in the Grand Canyon – Parashant National Monument; to reduce abnormally high fuel loadings and ecosystem structure in vegetative communities that have been altered by past management activities; to increase biodiversity and promote the establishment of native grasses and forbs to aid in preventing soil erosion and increase wildlife forage; and, to restore wildlife habitat and increase potential habitat for sensitive species.

Compliance and Monitoring

All actions will be confined to areas of existing disturbance. Measures will be taken to avoid impacts to cultural properties, special status species, wilderness, and visual resources. If any goshawk nest is found to be occupied in or near a treatment unit (or that may be affected activities occurring as part of this project) then BLM will flag prescribed avoidance area (based on 120 yard radius). All personnel will be notified and restrict activities to outside the avoidance area. These avoidance areas will remain in place until the nestlings have completely fledged. Occupied nest sites would be excluded from the burn treatment by constructing fireline outside the avoidance area. A qualified individual will be on site during all surface-disturbing activities to monitor compliance. BLM will adhere to condor management guidelines (attached).

If, in connection with this work, any human remains, funerary objects, sacred objects, or objects of cultural patrimony as defined in the Native American Graves Protection Act are discovered, the operation would cease in the area of the discovery. The discovery would be protected and operations would not resume until authorized by the Field Manager.

If a listed species is observed, all work in the area would stop and would not be allowed to resume if there was any possibility that activities could adversely affect the species. If it is determined that the project would affect any listed species, the project would halt until consultation with the US Fish and Wildlife Service could occur.

Implementation Date

This project will be implemented on or after April 1st, 2005.

Administrative Review or Appeal Opportunities

The decision is subject to administrative appeal to the IBLA (see 43 CFR 4 for appeal rules and information).

Contact Person

For additional information concerning this decision, contact Tim Duck, Fuels Program Manager, Arizona Strip Field Office, 345 East Riverside Drive, St. George, Utah 84790, (435) 688-3238.

_____ _____

Roger Taylor Date

District Manager
Arizona Strip District

Attachments:
Location Maps
Condor Mitigation

Exceptions Review		
List of Exceptions	**Specialist Signature/Date**	**Comments/Explanation**
1. Have significant adverse impacts on public health or safety.	~~Swinscoe~~Klein	
2. Have adverse effects on unique geographic characteristics, historic or cultural resources, park, recreation or refuge lands, wilderness areas, wild or scenic rivers, sole or principal drinking water aquifers, prime farmlands, wetlands, floodplains, or ecologically significant or critical areas, including those listed on the Department's National Register of Natural Landmarks.	Spotts Herron	
3. Have highly controversial environmental effects.	Spotts	
4. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.	Spotts	
5. Establish a precedent for future actions or represent a decision in principle about future actions with potentially significant environmental effects.	Spotts	
6. Be directly related to other actions with individually insignificant, but cumulatively significant environmental effects.	Spotts	
7. Have adverse effects on properties listed or eligible for listing on the National Register of Historic Places.	Herron	
8. Have adverse effects on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have adverse effects on designated critical habitat for these species.	Herder	
9. Require compliance with Executive Order 11988 (Floodplain Management), Executive Order 11990 (Protection of Wetlands), or the Fish and Wildlife Coordination Act. Will not have adverse effects on impaired waters.	Smith	
10. Threaten to violate a Federal, State, local or tribal law or requirement imposed for the protection of the environment.	Spotts Benson	
11. Project was identified through a collaborative framework as described in the 10 year Comprehensive Strategy Implementation Plan.	Duck~~Spotts~~	
12. Project will not involve the construction of new permanent roads or other infrastructure, or have adverse effects on inventoried roadless areas.	Folks/Bailey	
13. Project will not include sales of vegetative material that do not have hazardous fuels reduction as their primary purpose, or require the use of herbicides or pesticides.	Duck	
14. Project will not exceed 1,000 acres for mechanical hazardous fuels reduction activities and will not exceed 4,500 acres for hazardous fuels reduction activities using fire.	Duck	